

Application No. 09/873,310

Reply to Office Action of April 20, 2006

THE CLAIMS

Listing of claims:

- 1 (CURRENTLY AMENDED) A system for interleaving data in a wireless transmitter comprising:
a memory buffer; and
means, coupled to said memory buffer, for sending downstream, a portion of an input data stream comprising every C^{th} bit of an ~~said~~ input data stream and for writing ~~the~~ at least some of a remaining portion of bits of said input data stream to said memory buffer according to a first interleaving pattern, wherein C comprises a number of columns in said memory buffer.
2. (CURRENTLY AMENDED) The system of claim 1, wherein said portion of an input data stream comprising every C^{th} bit is sent downstream without being stored in said memory buffer.
3. (CANCELLED)
4. (CURRENTLY AMENDED) The system of claim 1, wherein said means further comprises means for reading said at least some of said remaining portion of bits of said input data stream from said memory buffer, forming an output data stream.
5. (CURRENTLY AMENDED) A system for interleaving data in a wireless transmitter comprising:

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a memory buffer;

means for sending downstream, a portion of an input data stream comprising every C^{th} bit of an said input data stream, wherein C comprises a number of columns in said memory buffer;means for writing the at least some of a remaining portion of bits of said input data stream to said memory buffer; andmeans for reading said at least some of said remaining portion of said bits of said input data stream from said memory buffer according to a first interleaving pattern.

6. (CURRENTLY AMENDED) A transmitter that transmits data via a wireless link, said transmitter comprising:

a medium access control layer;

a coding/multiplexing unit including:

a memory buffer, and

means, coupled to said memory buffer, for sending downstream, a portion of an input data stream comprising every C^{th} bit of an said input data stream from said medium access control layer and for writing the at least some of a remaining portion of bits of said input data stream to said memory buffer according to a first interleaving pattern, wherein C comprises a number of columns in said memory buffer; and

a modulator coupled between the wireless link and said coding/multiplexing unit.

7. (CURRENTLY AMENDED) A system for interleaving data in a wireless transmitter comprising:

a memory buffer; and

a read/write unit, coupled to said memory buffer, wherein said read/write unit is configured to send downstream, a portion of an input data stream comprising every C^{th} bit of an said input data stream and to write the at least some of a remaining portion of bits of said input data stream to said memory buffer according to a first interleaving pattern, wherein C

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comprises a number of columns in said memory buffer.

8. (CURRENTLY AMENDED) A system for interleaving data in a wireless transmitter comprising:

a memory buffer; and

means for sending downstream a first radio frame from a first portion of an input code block, for storing one or more additional radio frames from a second portion of said input code block in said memory buffer and discarding ~~any remaining~~ radio frames from a remaining portion of said input code block, for sending said one or more additional radio frames downstream from said memory buffer, and for causing said input code block to be re-calculated.

9. (CURRENTLY AMENDED) A method for interleaving data in a wireless transmitter comprising:

sending downstream a portion of an input data stream comprising every C^{th} bit of an said input data stream; and

writing ~~the~~ at least some of a remaining portion of bits of said input data stream to a memory buffer according to a first interleaving pattern, wherein C comprises a number of columns in said memory buffer.

10. (CURRENTLY AMENDED) The method of claim 9, wherein said portion of said input data stream comprising every C^{th} bit is sent downstream without being stored in said memory buffer.

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12. (CURRENTLY AMENDED) The method of claim 9, ~~further comprising reading~~ said remaining portion of said bits of said input data stream from said memory buffer to form an output data stream.

13. (CURRENTLY AMENDED) A method for interleaving data in a wireless transmitter comprising:

sending downstream, a portion of an input data stream comprising every C^{th} bit of an said input data stream, without storing said C^{th} bit of said input data stream in a memory buffer, wherein C comprises a number of columns in said memory buffer;

writing the a remaining portion of bits of said input data stream to a said memory buffer; and

reading said remaining portion of bits of said input data stream from said memory buffer according to a first interleaving pattern.

14. (CURRENTLY AMENDED) A method for interleaving data in a wireless transmitter comprising:

(a) sending downstream a first radio frame from a first portion of an input code block;

(b) storing one or more additional radio frames from a second portion of said input code block in a memory buffer and discarding any ~~remaining~~ radio frames ~~from in a~~ remaining portion of said input code block;

(c) reading said one or more additional radio frames from said memory buffer and sending said one or more additional radio frames downstream; and

(d) recalculating said input code block and repeating operations (a) through (d) until said ~~remaining~~ radio frames in said remaining portion of said input code block have been sent downstream.

FROM McANDREWS, HELD, & MALLOY

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